



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/760,167	01/16/2004	Joseph J. Kubler	14364US07	1127

23446 7590 04/17/2006

MCANDREWS HELD & MALLOY, LTD
500 WEST MADISON STREET
SUITE 3400
CHICAGO, IL 60661

EXAMINER

MOORE, IAN N

ART UNIT PAPER NUMBER

2616

DATE MAILED: 04/17/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/760,167	KUBLER ET AL.	
	Examiner	Art Unit	
	Ian N. Moore	2616	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 21 November 2005.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 22-57 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 22-57 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Objections

1. Claims 22 and 39 are objected to because of the following informalities:

Claim 22 recites the limitation “**packets**” in line 10. There is insufficient antecedent basis for this limitation in the claim. In particular, it is unclear this “packets” in line 11 refers “**digital voice packets**” (line 5), “**data packets**” (line 8), or **both**.

Claim 39 recites the limitation “**packets**” in line 9. There is insufficient antecedent basis for this limitation in the claim. In particular, it is unclear this “packets” in line 9 refers “**packets comprising digital representations of sound**” (line 5-6), “**packets comprising digital data**” (line 7-8), or **both**.

Appropriate corrections are required.

Claim Rejections - 35 USC § 103

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

3. Claims 22, 39 and 59 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sainton (US00RE38787E) in view of Drakopoulos (US005506848A).

Regarding Claims 22 and 59, Sainton discloses a communication network supporting the exchange of voice and data (see FIG. 14, cellular telephone system; see col. 5, line 19-32), the network comprising:

Art Unit: 2616

at least one portable terminal (see FIG. 1-2, cellular phone) having a wireless transceiver adapted for communication using a packet protocol (see col. 5, line 19-32; see col. 6, line 21-30; a cellular telephone communicates utilizing frame/packet protocol);

the at least one portable terminal adapted for converting sound into digital voice packets (see FIG. 1B, microphone 102 and , a combined system of voice processing 104, A/D 108, and modulator 22 (see FIG. 1A)) for transmission via the wireless transceiver (see FIG. 1A, Antenna 2, mixer 8, amplifier 6; see col. 6, line 20-52; see col. 8, line 25 to col. 9, line 25; voice signals are converted to digitized voice packets/frames and transmitted); and for receiving digital voice packets via the wireless transceiver (see FIG. 1A, Antenna 2, Mixer 10; see col. 6, line 21-50), the contents of the digital voice packet for conversion into sound (see FIG. 1B, speaker 100 and a combined system of voice processing 104, D/A 106, and demodulator 18 (see FIG. 1A); see col. 6, line 30-52; see col. 8, line 25 to col. 9, line 25; converts digitized voice packets/frames into voice signals, then to sound);

the at least one portable terminal adapted for capturing digital data into data packets (see FIG. 1B, a combined system of Data processing 118 and modulator 24 (see FIG. 1A)) for transmission via the wireless transceiver (see FIG. 1A, Antenna 2, mixer 8, amplifier 6; see col. 6, line 20-52; see col. 8, line 25 to col. 9, line 25; data signals are converted to data packets/frames and transmitted), and for receiving data packets via the wireless transceiver (see FIG. 1A, Antenna 2, Mixer 10), the contents of the data packets used for reproducing digital data (see FIG. 1B, a combined system of Data processing 118 and demodulator 20(see FIG. 1A; see col. 6, line 30-52; see col. 9, line 25 to col. 10, line 21; converts data packets/frames into data signals); and

Art Unit: 2616

at least one access device (see FIG. 14, a base station comprising a Cell site transmitter 1412) having a wireless transceiver (see FIG. 14, base station has a transceiver) for exchanging packets with the at least one portable terminal (see FIG. 14, exchange packets/frame with cellular phone/device 1), the at least one access device comprising a network interface (see FIG. 14, an interface that connects to cellular telephone network office 1402) for exchanging information via a wired network (see FIG. 14, cellular telephone network office connects to the wire network (e.g. PSTN, Internet, Ethernet, or equivalent thereof); see col. 21, line 20-36);

the at least one access device selectively transferring to its wireless transceiver for transmission at least a portion of the information received from its network interface (see FIG. 14, a base station comprising a Cell site transmitter 1412 selectively, in transmit direction to wireless transceiver, moves/transfer the data packets/frame received from its network interface (via cellular telephone network office); see col. 21, line 20-36), and

selectively transferring to its network interface for transmission at least a portion of the information received by its wireless transceiver (see FIG. 14, a base station comprising a Cell site transmitter 1412 selectively, in receive direction from wireless transceiver, moves/transfer the data packets/frame to its network interface (to cellular telephone network office); see col. 21, line 20-36); and

wherein digital voice packets wirelessly exchanged by the at least one portable terminal comprise information used for routing the digital voice packets through the communication network (see col. 8, line 25 to col. 9, line 25; digitized packets/frames/data from the cellular phone comprise routing/forwarding information through the cellular telephone system).

Sainton does not explicitly disclose destination information. However, it is well known in the art when forming and routing packets/frames over the network to remote end/destination, one must use destination address/number/information to route. In particular, Drakopoulos teaches wherein the outgoing digital voice packets comprise destination information (i.e. signaling/control information) used for routing the outgoing digital voice packets through the wireless packet network (see col. 5, line 31-42; using the address of the destination end user in voice packet for routing through the wireless network). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide the use of destination information for routing the digital voice packet, as taught by Drakopoulos in the system of Sainton, so that it would ensure the network to route the voice packet to destination end user, and it would also maximize utilization of system resources and optimize performance; see Drakopoulos col. 1, line 64-67; see Drakopoulos col. 2, line 15-39.

Regarding Claims 28 and 45, Sainton discloses the packets exchanged by the at least one portable terminal comprises digital voice packets and data packets (see col. 6, line 30-52; see col. 8, line 25 to col. 9, line 25; see col. 9, line 25 to col. 10, line 21; digital voice and data frames/packets). Drakopoulos also discloses the packets exchanged by the at least one portable terminal comprises digital voice packets and data packets (see col. 5, line 9-42).

Regarding Claims 29 and 46, Sainton discloses wherein packets are transported wirelessly without regard to content (see FIG. 1A-B; col. 6, line 30-52; see col. 9, line 25 to col. 10, line 21; packets are transmitted regardless whether it is voice or data packets). Drakopoulos also discloses wherein packets are transported wirelessly without regard to content (see FIG. 6, 602; see col. 5, line 9-22).

Regarding Claims 36 and 53, Sainton discloses the communication network supports the established of voice calls by the at least one portable terminal via the wired network (see col. 6, line 30-52; see col. 8, line 25 to col. 9, line 25). Drakopoulos also discloses the communication network supports the established of voice calls by the at least one portable terminal via the wired network (see col. 5, line 9-67).

Regarding Claims 37 and 54, Sainton discloses the communication network supports the receipt of voice calls by the at least one portable terminal via the wired network (see col. 6, line 30-52; see col. 8, line 25 to col. 9, line 25). Drakopoulos also discloses the communication network supports the receipt of voice calls by the at least one portable terminal via the wired network (see col. 5, line 9-67).

Regarding Claims 38 and 55, Sainton discloses wherein the communication network supports the concurrent exchange of data unrelated to a voice call (see FIG. 1A-B; col. 6, line 30-52; see col. 9, line 25 to col. 10, line 21; data packets carry actual data traffic, not the management of voice calls which is related to a voice call). Drakopoulos also discloses wherein the communication network supports the concurrent exchange of data unrelated to a voice call (see FIG. 6, 602; see col. 5, line 9-22).

Regarding Claim 56, Drakopoulos discloses wherein the designated one of the at least one network interface is designated based upon information received via the wireless transceiver (see col. 5, line 9 to col. 6, line 65). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide routing based upon received, as taught by Drakopoulos in the system of Sainton, for the same motivation as set forth above in claim 39.

Regarding Claim 57, Drakopoulos discloses wherein the designated one of the at least one network interface is designated based upon information received via the network interface (see col. 5, line 9 to col. 6, line 65). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide routing based upon received, as taught by Drakopoulos in the system of Sainton, for the same motivation as set forth above in claim 39.

4. Claims 23,24,40,41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sainton in view of Drakopoulos, as applied to claims 22 and 39 above, and further in view of Cripps (US005838730A).

Regarding Claims 23 and 40, neither Sainton nor Drakopoulos explicitly disclose a frequency of approximately 2.4 gigahertz. However, using 2.4 GHz frequency hopping is well known in the art as defined by FCC. In particular, Cripps discloses wherein the wireless packet network communicates at a frequency of approximately 2.4 gigahertz (abstract; see col. 2, line 13-20; see col. 36, line 32-45; 2.4 GHz).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide 2.4 GHz, as taught by Cripps, in the combined system of Sainton and Drakopoulos, so that it would provide a transmitter/receiver in accordance with FCC rules for 2.4 GHz ISM which is low cost and low power; see Cripps col. 2, line 15-32.

Regarding Claims 24 and 41, neither Sainton nor Drakopoulos explicitly disclose a frequency hopping spread spectrum technique. However, using frequency hopping spread spectrum techniques is well known in the art. In particular, However, Cripps discloses wherein

Art Unit: 2616

the wireless packet network communicates frequency hopping spectrum technique (abstract; see col. 2, line 13-20; see col. 36, line 32-45; 2.4 GHz).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide frequency hopping spread spectrum 2.4 GHz, as taught by Cripps, in the combined system of Sainton and Drakopoulos, so that it would provide a transmitter/receiver in accordance with FCC rules to support frequency hopping spread spectrum 2.4 GHz ISM which is low cost and low power; see Cripps col. 2, line 15-32.

5. Claims 25 and 42 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sainton in view of Drakopoulos, as applied to claims 22 and 39 above, and further in view of Honing (US005481533A).

Regarding Claims 25 and 42, neither Sainton nor Drakopoulos explicitly disclose a direct sequence spread spectrum technique. However, using direct sequence spread spectrum technique is well known in the art. In particular, Honing discloses wherein the wireless packet network communicates using a direct sequence spread spectrum technique (abstract; see col. 2, line 34-40).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide direct sequence spread spectrum technique, as taught by Honing, in the combined system of Sainton and Drakopoulos, so that it would suppress interference; see Honing col. 2, line 38, line 38-40.

Art Unit: 2616

6. Claims 26,27,43,44 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sainton in view of Drakopoulos, as applied to claims 22 and 39 above, and further in view of Perkins (US005159592A).

Regarding Claims 26,27,43 and 44, neither Sainton nor Drakopoulos explicitly disclose an Internet Protocol (IP), wherein IP protocol is TCP/IP. However, Perkins discloses wherein the wireless packet network uses an Internet Protocol (IP), wherein IP protocol is TCP/IP (see col. 4, line 10-20; see col. 7, line 35-56; col. 8, line 30-45; mobile unit 10 and access gateway utilizing TCP/IP).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide TCP/IP, as taught by Perkins, in the combined system of Sainton and Drakopoulos, so that it would provide wireless migration users to a network operating in accordance with the TCP/IP protocol; see Perkins col. 2, line 55-60; see col. 3, line 15-30.

Regarding Claims 30-32 and 47-49, neither Sainton nor Drakopoulos explicitly disclose the wired network comprises a packet network, uses an Internet Protocol (IP), wherein IP protocol is TCP/IP. However, Perkins discloses wherein the wired network comprises a packet network, uses an Internet Protocol (IP), wherein IP protocol is TCP/IP (see col. 3, line 55-64; col. 4, line 10 to col. 5, line 60; see col. 7, line 5-67; col. 8, line 45-67; Header station couples to a wired packet network utilizing TCP/IP).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide TCP/IP in wire network, as taught by Perkins, in the combined system of Sainton and Drakopoulos, so that it would provide wireless migration users

Art Unit: 2616

to a network operating in accordance with the TCP/IP protocol; see Perkins col. 2, line 55-60; see col. 3, line 15-30.

7. Claims 33,35 and 50 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sainton in view of Drakopoulos, as applied to claims 22 and 39 above, and further in view of Doviak (US 5,717,737).

Regarding Claims 33,35 and 50, the combined system of Sainton and Drakopoulos discloses a network interface to a wired network as described above in claims 22 and 39. The combined system of Sainton and Drakopoulos wherein the network interface communicates via the wired network in digital form (see Sainton col. 21, line 20-36; see Drakopoulos col. 3, line 24-65)

Neither Sainton nor Drakopoulos explicitly disclose an Ethernet network. However, connecting to an Ethernet network is well known in the art. In particular, Doviak discloses herein the at least one network interface is compatible with an Ethernet network (see FIG. 1, Ethernet Local Area Network 10; see col. 6, line 19-32). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide Ethernet LAN, as taught by Doviak, in the combined system of Sainton and Drakopoulos, so that it would provide flexibility to users; see Doviak col. 3, line 18-55.

8. Claims 34,51, and 52 are rejected under 35 U.S.C. 103(a) as being unpatentable over Sainton in view of Drakopoulos, as applied to claims 22 and 39 above, and further in view of Weaver (US005956673A).

Regarding Claims 34,51, and 52, the combined system of Sainton and Drakopoulos discloses a network interface to a wired network as described above in claims 22 and 39. The combined system of Sainton and Drakopoulos wherein the network interface communicates via the wired network in digital form (see Sainton col. 21, line 20-36; see Drakopoulos col. 3, line 24-65)

Neither Sainton nor Drakopoulos explicitly disclose a conventional switched telephone network. However, having a conventional switched telephone network is well known in the art. In particular, Weaver discloses a network comprises a conventional switched telephone network (see FIG. 2. PSTN 40), wherein the network interface communicates via the wired network in digital form (see FIG. 1, BS's local vocoder 35 communicates via PSTN in PCM 210 form; see col. 3, line 28 to col. 4, line 60).

Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to provide PSTN, as taught by Weaver, in the combined system of Sainton and Drakopoulos, so that it would enable the system to route the PCM over existing/conventional PSTN, and it would avoid the tandem vocoding operation; see Weaver col. 1, line 60-67; see col. 2, line 15-20.

Response to Arguments

9. Applicant's arguments with respect to claims 22-57 have been considered but are moot in view of the new ground(s) of rejection.

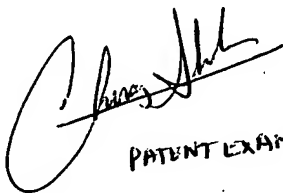
Conclusion

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Ian N. Moore whose telephone number is 571-272-3085. The examiner can normally be reached on 9:00 AM- 6:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris To can be reached on 571-272-7629. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

9NM
INM
4-4-06


PATENT EXAMINER, 2616